



**ELECTRONIC
INNOVATIONS**
IN ACTION

MICROWAVE DEVICES

Planar Triode

Y-1774

Development Type *

The Y-1774 is a planar metal-ceramic triode intended for use in long pulse amplifier chains. This tube features a large cathode area to provide long life through lower current densities and specific design features for long pulse applications.

AVERAGE CHARACTERISTICS

	Minimum	Bogey	Maximum	Units	Test Conditions				
					Ef V	Eb V	Ib Ma	RL Ohms	Rk Ohms
Heater Voltage, AC or DC•	6.0	6.3	6.6	Volts	6.3	---	---	---	---
Heater Current	---	1.7	---	Amperes	6.3	---	---	---	---
Plate Current	---	50	---	Milliamperes	6.3	400	---	---	33
Amplification Factor	---	125	---		6.3	400	---	---	33
Transconductance	---	42000	---	Micromhos	6.3	400	---	---	33
Grid Voltage, Cutoff	---	-25	---	Volts	6.3	2000	1	100000	---

ABSOLUTE-MAXIMUM RATINGS

GRID/CATHODE-PULSED AMPLIFIER SERVICE

Plate Voltage	2000	Volts
Plate Dissipation ▲	100	Watts
Peak Cathode Current	8	Amperes
Peak Grid Current	3	Amperes
Duty Factor	0.001	
Pulse Duration	200	Microseconds
Envelope Temperature at Hottest Point ♦	250	°C
Temperature Differential Between Two Adjacent Electrodes □	100	°C
Mechanical Vibration (20-2000 Hz Sinusoidal)	30	G Peak

Absolute-Maximum ratings are limiting values of operating and environmental conditions applicable to any electron device of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The device manufacturer chooses these values to provide acceptable serviceability of the device, making no allowance for equipment variations, environmental variations, and the effects of changes in operating conditions due to variations in the characteristics of the device under consideration and

of all other electron devices in the equipment.

The equipment manufacturer should design so that initially and throughout life no absolute-maximum value for the intended service is exceeded with any device under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of the device under consideration and of all other electron devices in the equipment.

NOTES

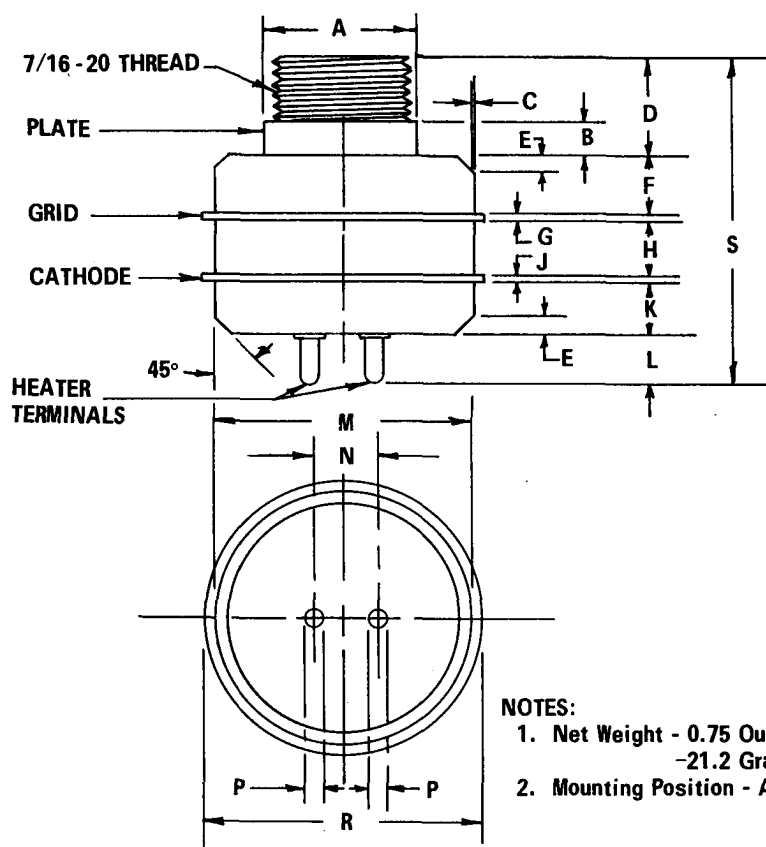
- ★ Both electrical and mechanical characteristics of development types are subject to change; therefore it is recommended that designers consult their General Electric field representative before designing equipment around developmental types.
- The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance. In some applications, longer tube life may be obtained at reduced heater voltage. For specific recommendations, contact your General Electric sales representative.
- ▲ With adequate heat-sink attached to threaded plate stud.
- ♦ For specific recommendations concerning higher temperature operation, contact your General Electric sales representative.
- This assumes no thermal heat sinking to any insulator.

The devices and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of devices by General Electric Company conveys any license under patent claims covering combinations of these devices with other devices or elements. In the

absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of these devices with other devices or elements by any purchaser or others.

GENERAL  ELECTRIC

PHYSICAL DIMENSIONS



NOTES:

1. Net Weight - 0.75 Ounces
-21.2 Grams
2. Mounting Position - Any

Ref.	INCHES			MILLIMETERS		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	---	0.490	---	---	12.45	---
B	---	0.110	---	---	2.794	---
C	---	0.005	---	---	0.127	---
D	---	0.310	---	---	7.874	---
E	---	0.050	---	---	1.270	---
F	---	0.187	---	---	4.750	---
G	---	0.025	---	---	0.635	---
H	---	0.175	---	---	4.445	---
J	---	0.025	---	---	0.635	---
K	---	0.175	---	---	4.445	---
L	---	0.175	---	---	4.445	---
M	---	0.825	---	---	20.96	---
N	---	0.200	---	---	5.080	---
P	---	0.050	---	---	1.270	---
R	---	0.900	---	---	22.86	---
S	---	1.072	---	---	27.20	---

TUBE PRODUCTS DEPARTMENT

GENERAL  ELECTRIC

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